

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

## AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method of absorbing hydrophobic water-immiscible liquids from a mixture of such a liquid with water comprising:  
treating the mixture with lignocellulosic plant-material which has been modified by esterification of hydroxyl groups in the lignin of the lignocellulosic plant-material such as to render the material more attractive to hydrophobic water-immiscible liquids while still retaining hydrogen bonding to maintain the structural integrity of the material; and  
filtering or removing the hydrophobic water-immiscible liquid from the mixture.
2. (Canceled)
3. (Original) A method as claimed in claim 1 wherein the esterified-material has a weight gain of 5-40% as compared to the unesterified material.
4. (Original) A method as claimed in claim 3 wherein the weight gain is 12 to 25 %.
5. (Previously Presented) A method as claimed in claim 1 wherein the acid residues in the material are of the formula Alk-C-(O)-O in which Alk is an alkyl group of 1 to 4 carbon atoms.
6. (Original) A method as claimed in claim 5 wherein the esterification is acetylation.
7. (Canceled)
8. (Original) A method as claimed in claim 1 where the lignocellulose-is thermomechanically pulped fibre.
9. (Original) A method as claimed in claim 1 wherein the lignocellulose comprises plant material chips, plant stem segments and/or whole plant stems.

RESPONSE TO ACTION 1-23-04  
Robson et al. Serial No. 08/876,322  
007058-000005.JBM.283078

10. (Previously Presented) A method as claimed in claim 1 wherein the source of the lignocellulose is selected from the group consisting of wood, straw, flax, linseed, bagasse, sisal, jute, kenaf, miscanthus, coir and hemp.

11. (Previously Presented) A method as claimed in claim 1 wherein the water-immiscible liquid is an oil.

12. (Original) A method as claimed in claim 11 wherein the oil is an oil spillage in water.

13. (Original) A method as claimed in claim 12 wherein the modified plant material is spread on to the surface of the water.

14. (Original) A method as claimed in claim 12 which comprises drawing through the oil an article which comprises the modified plant material within an outer covering through which the oils may pass.

15. (Previously Presented) A method as claimed in claim 1 wherein the water-immiscible liquid is an organic solvent or a pesticide residue.

16. (Canceled)

17. (Previously Presented) The method as claimed in claim 1 in which the hydrophobic water-immiscible liquid is transformer oil and the modified lignocellulosic plant material is in the form of a paper

18-19. (Canceled)

20. (Previously Amended) An article for absorbing hydrophobic water-immiscible liquids comprising lignocellulosic plant material which has been rendered relatively more attractive to hydrophobic water-immiscible liquids by esterification of hydroxyl groups in the lignin of the plant material, and a covering material provided around the modified plant material through which the hydrophobic liquid may pass, wherein the article is in the form of a boom or pillow.

21-23. (Canceled)

24. (Original) An article as claimed in claim 20 in which the esterification is acetylation.

25. (Previously Presented ) The method of claim 1 in which the esterification of the hydroxyl groups of the lignocellulosic material consists essentially of esterifying the hydroxyl groups of the lignin of the lignocellulosic material.

26. (New) A method of absorbing hydrophobic water-immiscible liquids from a mixture of such a liquid with water comprising:

treating the mixture with a material consisting essentially of wood fiber which has been modified by esterification of hydroxyl groups in the lignin of the wood fiber material such as to render the material more attractive to hydrophobic water-immiscible liquids while still retaining hydrogen bonding to maintain the structural integrity of the material; and optionally filtering or removing the hydrophobic water-immiscible liquid from the mixture.

27. (New) A method as claimed in claim 26 wherein the esterified-material has a weight gain of 5-40% as compared to the unesterified material.

28. (New) A method as claimed in claim 26 wherein the esterification is acetylation.

31. (New) A method as claimed in claim 26 where the material is thermomechanically pulped wood fibre.

32. (New) A method as claimed in claim 26 wherein the modified material is spread on to the surface of the water.

33. (New) A method as claimed in claim 26 which comprises drawing through the mixture an article which comprises the modified material within an outer covering through which the oils may pass.

34. (New) A method of absorbing transformer oil from a mixture of such a liquid with water comprising:

treating the mixture with paper-material which has been modified by esterification of hydroxyl groups in the lignin of the paper-material such as to render the material more attractive to transformer oil while still retaining hydrogen bonding to maintain the structural integrity of the material.